

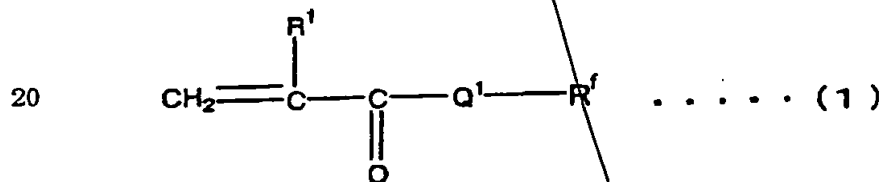
CLAIMS

1. A composition for preventing creeping of a flux for soldering, which comprises a polymer (A) containing the following polymer units (a<sup>1</sup>) and the following polymer units (b<sup>1</sup>), and an aqueous medium (B).

Polymer units (a<sup>1</sup>): Polymer units derived from an unsaturated ester containing a polyfluoroalkyl group, or polymer units derived from an unsaturated ester containing a polyfluoroalkyl group having an etheric oxygen atom inserted in the carbon-carbon bond

Polymer units (b<sup>1</sup>): Polymer units derived from a compound containing a silicon atom and an unsaturated group.

2. The composition according to Claim 1, wherein the polymer units (a<sup>1</sup>) are polymer units derived from a compound represented by the following formula (1):



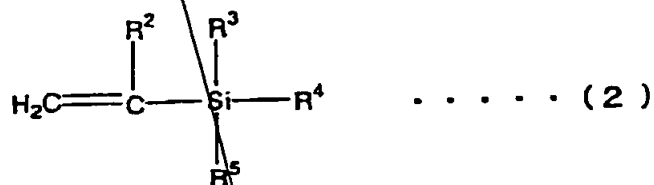
provided that in the formula (1), Q<sup>1</sup>, R<sup>1</sup> and R<sup>f</sup> have the following meanings.

- Q<sup>1</sup>: A single bond or a bivalent connecting group.  
 R<sup>1</sup>: A hydrogen atom or a methyl group.  
 R<sup>f</sup>: A polyfluoroalkyl group, or a polyfluoroalkyl

10069513:030402

group having an etheric oxygen atom inserted in the carbon-carbon bond.

3. The composition according to Claim 1 or 2, the  
5 polymer unit (b<sup>1</sup>) is a polymer unit of the compound having the following formula (2):



10

provided that in the formula (2), R<sup>2</sup>, R<sup>3</sup>, R<sup>4</sup> and R<sup>5</sup> have the following meanings.

R<sup>2</sup>: A hydrogen atom or a methyl group.

- R<sup>3</sup>, R<sup>4</sup> and R<sup>5</sup>: Independently from one another, an  
15 alkyl group having a carbon number of from 1 to 5,  
or an alkoxy group having a carbon number of from 1 to 5.

4. The composition according to any one of Claims 1 to  
20 3, which further contains a fluorine type surfactant (C).

5. The composition according to any one of Claims 1 to 4, wherein the softening point of the polymer (A) is at  
25 least 40°C and less than 150°C.

6. The composition according to any one of Claims 1 to

10069513-030402

5, wherein the aqueous medium (B) contains a water-soluble organic solvent, and the boiling point of the water-soluble organic solvent is from 40 to 200°C.

5 7. The composition according to any one of Claims 1 to 6, wherein the surface tension of the composition is from 10 to 25 mN/m.

10 8. The composition according to any one of Claims 1 to 7, wherein the polymer units ( $a^1$ ) are polymer units derived from  $R^f\text{-OCOCH=CH}_2$  ( $R^f$  is as defined in Claim 1) and the polymer units ( $b^1$ ) are polymer units derived from  $\text{CH}_2=\text{CHSi(OR}^6\text{)}_3$  ( $R^6$  is an alkyl group having carbon number of from 1 to 3)

15

9. The composition according to any one of Claims 1 to 8, wherein the polymer (A) further contains polymer units ( $c^1$ ) other than the polymer units ( $a^1$ ) and the polymer units ( $b^1$ ) and the polymer units ( $c^1$ ) are derived from a monomer containing a polymerizable unsaturated group, no  $R^f$  group and no silicon atom.

10. The composition according to Claim 9, wherein the polymer units ( $c^1$ ) are polymer units derived from at least one monomer selected from the group consisting of ethylene, vinyl chloride, styrene, (meth)acrylic acid, cyclohexyl (meth)acrylate, an alkyl (meth)acrylate, a

204020-CT569001

mono(meth)acrylate of a polyoxyalkylene diol and glycidyl (meth)acrylate.

11. The composition according to Claim 9, wherein the  
5 polymer units (a<sup>1</sup>) are polymer units derived from R<sup>f</sup>-  
OCOCH=CH<sub>2</sub> (R<sup>f</sup> is as defined in Claim 1), the polymer units  
(b<sup>1</sup>) are polymer units derived from CH<sub>2</sub>=CHSi(OR<sup>6</sup>)<sub>3</sub> (R<sup>6</sup> is  
as defined in Claim 8), and the polymer units (c<sup>1</sup>) are  
polymer units derived from cyclohexyl (meth)acrylate.

10 12. A method for soldering an electronic part or printed  
board, which comprises forming a coating film of the  
composition as defined in any one of Claims 1 to 11 on a  
part or the whole surface of an electronic part or a  
15 printed board, then treating the surface having the  
coating film thus formed, with a flux for soldering, and  
then carrying out soldering.

13. A soldered electronic part or printed board,  
20 obtained by the method as defined in Claim 12.

14. An electric appliance employing the electronic part  
or printed board as defined in Claim 13.

Add #17